

WHAT IS CLAIMED IS:

1 1. A method for improving the yield of a CD recorder,  
2 characterized by adjustment of the current recordable  
3 rate and a write delay table using the data of a write  
4 radio frequency profile.

5 2. A method for improving the yield of a CD recorder,  
6 comprising the steps:

7 determining the number of wrong detection code to be  
8 input;

9 decreasing the recordable rate if the number of wrong  
10 detection codes to be input is over a first predetermined  
11 number;

12 respectively comparing the first, second, third input  
13 signal levels with the first, second, third predetermined  
14 signal levels; adjusting a write power based on the comparison  
15 results;

16 adjusting a write delay based on a jitter input value;  
17 adjusting the current recordable rate and a write delay  
18 table based on the adjusted write power and write delay to  
19 control the rotation rate of spindle motor and the write  
20 action of the pickup in the CD recorder.

1 3. The method of claim 2, wherein the step of  
2 adjusting the current recordable rate and a write  
3 delay table comprises the action of keeping the  
4 current recordable rate and the write delay table  
5 unchanged.

1 4. The method of claim 2, wherein the step of  
2 adjusting the current recordable rate and a write

- 3 delay table comprises the action of increasing the  
4 recordable rate and updating the write delay table.
- 1 5. The method of claim 2, wherein the step of  
2 adjusting the current recordable rate and a write  
3 delay table comprises the action of decreasing the  
4 recordable rate and updating the write delay table and  
5 a write power.
- 1 6. The method of claim 5, wherein a laser source is  
2 used to provide the write power.
- 1 7. The method of claim 2, further comprising a step  
2 of adjusting a write error and accumulating the  
3 adjusted number when the number adjusting the write  
4 power and write delay is zero.
- 5 8. The method of claim 7, further comprising a step  
6 of adjusting the current recordable rate and the write  
7 delay table based on the adjusted number accumulated.
- 8 9. The method of claim 8, wherein the step of  
9 adjusting the current recordable rate and write delay  
10 table comprises keeping the current recordable rate  
11 and the write delay table unchanged.
- 12 10. The method of claim 8, wherein the step of  
13 adjusting the current recordable rate and write delay  
14 table comprises increasing the current recordable  
15 rate and updating the write delay table.
- 16 11. The method of claim 2, wherein the jitter value  
17 is changed based on the temperature of a pickup and

18 the dye and coating thickness used to the surface of  
19 a CD.

20 12. The method of claim 2, wherein the input first,  
21 second, and third signal levels are obtained from the  
22 standard sampling points of write radio frequency when  
23 a laser power positioned in the pickup is used to  
24 record the CD.

25 13. The method of claim 12, wherein the standard  
26 sampling points are defined in the Orange Book.

27 14. The method of claim 2, wherein the write radio  
28 frequency profile depends on the dye crystallization  
29 depth of a CD.

1 15. The method of claim 2, wherein the radio frequency  
2 is a feedback signal.

3 16. A device for improving the yield of a CD recorder,  
4 comprising:

5 a level comparator for respectively comparing the first,  
6 second, and third input signal levels with the first, second,  
7 and third determined signal levels and outputting the  
8 comparison results;

9 a slicer for converting a write radio frequency into the  
10 form of binary signal to extract the write radio frequency  
11 profile;

12 a phase comparator for comparing the binary write radio  
13 frequency profile with a mark signal profile modulated by the  
14 eight-to-fourteen modulation and having a phase error output  
15 signal;

16 a low-pass filter for eliminating a low frequency  
17 baseline fluctuation in the write radio frequency based on  
18 the phase error output signal and generating a jitter value;  
19 and

20 a yield control microprocessor for adjusting the pickup  
21 output power, the recordable delay time, and the rotation rate  
22 of the spindle motor based on the output results from the level  
23 comparator, the jitter value, and an input cyclic redundancy  
24 check (CRC).

25 17. The device of claim 16, wherein the jitter value  
26 is changed based on the temperature of a pickup and  
27 the dye and coating thickness used to the surface of  
28 a CD.

29 18. The device of claim 16, wherein the input first,  
30 second, and third signal levels are obtained from the  
31 standard sampling points of write radio frequency when  
32 a laser power positioned in the pickup is used to  
33 record the CD.

34 19. The method of claim 12, wherein the standard  
35 sampling points are defined in the Orange Book.

36 20. The method of claim 2, wherein the write radio  
37 frequency profile depends on the dye crystallization  
38 depth of a CD.

1 21. The method of claim 2, wherein the radio frequency  
2 signal is a feedback signal.